

PH

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



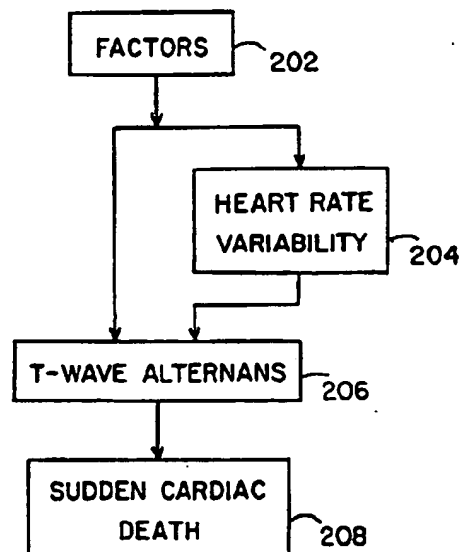
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5 : A61B 5/0452	A1	(11) International Publication Number: WO 94/06350 (43) International Publication Date: 31 March 1994 (31.03.94)
(21) International Application Number: PCT/US93/08782 (22) International Filing Date: 16 September 1993 (16.09.93) (30) Priority data: 07/948,529 22 September 1992 (22.09.92) US (71) Applicant: GEORGETOWN UNIVERSITY [US/US]; 2nd Ryan Administration Building, 37th & O Streets, N.W., Washington, DC 20057 (US). (72) Inventors: VERRIER, Richard, L. ; 5104 Duvall Drive, Be- thesda, MD 20816 (US). NEARING, Bruce, D. ; P.O. Box 10434, Rockville, MD 20849 (US). (74) Agents: KESSLER, Edward, J. et al.; Sterne, Kessler, Goldstein & Fox, 1100 New York Avenue, N.W., Suite 600, Washington, DC 20005-3934 (US).	(81) Designated States: AU, CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: CARDIAC VULNERABILITY TRACKING METHOD AND APPARATUS

(57) Abstract

A method and apparatus for the non-invasive, dynamic tracking and diagnosing of cardiac vulnerability to ventricular fibrillation features simultaneous analysis of T-wave alternans (206) and heart rate variability (204). The T-wave alternation is an absolute predictor of cardiac electrical instability. Heart rate variability is a measure of autonomic influence, a major factor in triggering cardiac arrhythmias. By simultaneously analyzing both phenomena (208) the extent and cause of cardiac vulnerability can be assessed.



BEST AVAILABLE COPY

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	FR	France	MR	Mauritania
AU	Australia	GA	Gabon	MW	Malawi
BB	Barbados	GB	United Kingdom	NE	Niger
BE	Belgium	GN	Guinea	NL	Netherlands
BF	Burkina Faso	GR	Greece	NO	Norway
BG	Bulgaria	HU	Hungary	NZ	New Zealand
BJ	Benin	IE	Ireland	PL	Poland
BR	Brazil	IT	Italy	PT	Portugal
BY	Belarus	JP	Japan	RO	Romania
CA	Canada	KP	Democratic People's Republic of Korea	RU	Russian Federation
CF	Central African Republic	KR	Republic of Korea	SD	Sudan
CG	Congo	KZ	Kazakhstan	SE	Sweden
CH	Switzerland	LI	Liechtenstein	SI	Slovenia
CI	Côte d'Ivoire	LK	Sri Lanka	SK	Slovak Republic
CM	Cameroon	LU	Luxembourg	SN	Senegal
CN	China	LV	Latvia	TD	Chad
CS	Czechoslovakia	MC	Monaco	TG	Togo
CZ	Czech Republic	MG	Madagascar	UA	Ukraine
DE	Germany	ML	Mali	US	United States of America
DK	Denmark	MN	Mongolia	UZ	Uzbekistan
ES	Spain			VN	Viet Nam
FI	Finland				